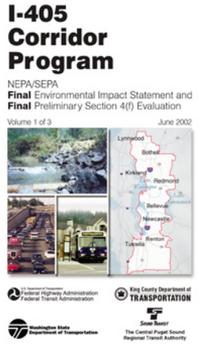
Environmental Review Assures That Impacts Are Minimized

What environmental work has been done on the I-405 project?



In the fall of 2002, a corridor-wide programmatic environmental impact statement (EIS) process resulted in a federal Record of Decision (ROD) that lays out a balanced program of highway, arterial, HOV/express lanes, local and bus rapid transit, non-motorized transportation and Transportation Demand Management (TDM) elements. The EIS completed three years of technical work and consensus building, and laid the foundation for a master plan of improvements that are now being implemented in several phases. The Record of Decision is a formal statement of support from the Federal Highway and Transit Administrations to improve I-405 as proposed, and means WSDOT can begin seeking federal funding, start project-level engineering design and buy needed right-of-way for the project.

What environmental work remains?

Detailed project-specific environmental reviews are being conducted for each of the three Nickel Projects. Environmental documentation for each of the Nickel Projects is approximately a two-year process that consists of data gathering, preliminary engineering design, analysis of potential environmental impacts, development of early environmental investments, mitigation and ongoing public and agency involvement. The purpose is to improve design options and identify potential impacts so they can be avoided and minimized as possible and mitigated if needed.

This environmental work has begun on the Kirkland Nickel Project, as well as on the North Renton project, which would be built with additional funding. (The City of Renton provided money for environmental review so that this project would be ready as soon as construction funding is identified.) Environmental review will begin on the Bellevue and Tukwila/South Renton projects in early 2005. Each environmental review will result in a document summarizing potential impacts and mitigations, and each requires approval by state and federal environmental officials.

How is the public involved in this environmental review?

Open houses provide the community with an opportunity to provide input into what gets studied in the environmental documents. I-405 team members will review the likely environmental effects associated with proposed road improvements along I-405. Exhibits, maps, environmental documents, and other pertinent information are on display, with program staff members available for questions regarding the I-405 project, design alternatives, environmental impacts, mitigation, early environmental investments and schedules. Written comments may be submitted during the open house or by mail until the published closing date.

Interested individuals may learn about open house dates by visiting the I-405 web site at *www.wsdot.wa.gov/projects/I-405* or by calling Colleen Gants, I-405 Public Information, at 425-456-8555.

Environmental Benefits

Will the I-405 Project help or hurt the environment?

The long-term I-405 Master Plan offers unique opportunities to enhance environmental resources and improve conditions in the corridor from those that exist today. Many environmental conditions and habitats will continue to suffer if left alone without the enhancements proposed by the project. In addition to retrofitting portions of the freeway to provide much higher levels of stormwater detention and treatment for runoff, the project will protect or improve stream habitat and remove several downstream barriers that impede fish passages. The project also will rehabilitate and create wetlands and stream-side vegetation as a part of the project's environmental program. Where feasible, noise walls, landscape berms and other features will be built along the corridor to limit noise impacts and reduce noise exposure in some areas to levels below those experienced today. Both air quality and energy consumption will benefit from the improved traffic operations and reduction in stop-and-go traffic conditions.

The I-405 projects provide significant funding for environmental enhancements that might otherwise never be accomplished. The I-405 projects will provide the opportunity to implement early environmental investments that will serve as models for regional problem solving and interagency cooperation. Specifically, the environmental plan for I-405 improvements includes:

- Approaching mitigation from a watershed-based planning view (such as taking the entire lower Cedar River Watershed into consideration to identify mitigation opportunities)
- Restoring natural stream flow and removing stream blockages in several locations
- Improving habitat for threatened and endangered species

How will environmental mitigation be handled?

The I-405 project team is committed to enhancing, as much as is feasible, the highly developed and modified environment crossed by I-405. This will be done through a strategy of looking holistically at the I-405 corridor and the watersheds it crosses. Innovative concepts such as watershed-based planning – identifying the greatest long-term benefits in a watershed rather than focusing only on traditional on-site spot mitigation – are being used. What's more, the project team and corridor jurisdictions are working aggressively to identify "early environmental investment" areas, sites that provide opportunities for up-front mitigation investments now. Our plan is to begin these investments before other construction begins, so that the environmental benefits can begin to accrue sooner.

Early Environmental Investments

As part of WSDOT's environmental commitment, the environmental team continues to investigate opportunities for early environmental investments along the corridor. The team is currently working with jurisdictions to identify sites that have potential for early development of mitigation projects that will offer the most environmental benefit for the dollar.

Engineered Flow Control
Example: stormwater detention pond

Restoring Natural Flow Control
Example: wetlands restoration

How will water runoff be handled?

Building new lanes on I-405 will increase the amount of surface water runoff that must be captured and cleaned. Water quality treatment will be provided for all new pavements using the latest scientific research and technologies that enable the project to achieve much better water quality than exist for most areas today. Where reasonable and feasible, portions of the existing facility will be retrofit to achieve a similarly high level of detention and water quality treatment, thus improving streams, aquatic habitat, and water quality from the levels experienced today.

In the past, stormwater detention ponds were used extensively *(photo, above left)*. Stormwater detention ponds capture and store water runoff before it reaches a stream system. While methods like this manage water quality and quantity, they are expensive to build, focus on minimizing negative impacts, and provide only the required benefits. A better potential solution is to create a wetlands restoration site *(photo, above right)*. Capturing surface water upstream from the highway and its urbanized environs and detaining it in a more natural environment focuses on maximizing positive impacts to the larger watershed and can achieve a wider range of sustainable environmental benefits (such as fish and wildlife habitat, aesthetic, and recreational opportunities) at the same or less cost. WSDOT is employing this new approach on a variety of highway projects throughout the state.

How does watershed-based planning work?

Specifically, watershed-based planning targets environmental investments to those areas that will realize the greatest long-term environmental benefit (vs. looking solely at the impact site and providing traditional in-kind responses). This enables the I-405 project team to examine how the watershed is functioning as a whole; as well as focus on critical needs, and its health, rather than restricting mitigation to localized spot treatments that are adjacent to the projects.

This new approach provides opportunities to restore natural processes, making the watershed more biologically productive and reducing long-term maintenance costs around streams and wetlands. This broader view of environmental mitigation may also yield ways to partner with local jurisdictions to implement larger or more challenging environmental projects with a much greater range of benefits than either could accomplish alone.

Watershed-based planning is expected to be a more cost-effective approach as well, particularly in areas that are highly urbanized or that exhibit challenging topography, such as steep slopes and wetlands. The I-405 project team is examining benefit to cost comparisons on conventional and alternative mitigation options in an attempt to achieve the greatest environmental return.

New Methods

New watershed characterization methods integrate the mitigation of wetland, riparian, floodplain, and stormwater impacts by restoring the landscape's capacity to provide necessary functions, while increasing the environmental benefits.

What about air quality?

I-405 improvements will reduce traffic congestion, which in turn reduces emissions of carbon monoxide and several other airborne pollutants. Increasing capacity on I-405 also lessens traffic congestion on the neighboring arterial streets, which will improve air quality for communities along the corridor. The corridor-wide EIS identifies ways to conduct construction activities to minimize air quality effects during the construction phase. Findings in the EIS show that the I-405 Corridor Program conforms with regional air quality standards as set by the Puget Sound Regional Council. Project-level environmental reviews are now underway for the three Nickel Projects along I-405 (Kirkland, Bellevue, Renton) to provide more specific data on how those specific improvements will affect air quality.

What approach will be taken to assure that the I-405 designs will be sensitive to local community needs?

A "context-sensitive solutions" (CSS) approach involves the public in determining how corridor improvements will functionally, achitecturally and aesthetically fit into local communities. The idea is to engage the community from a project's inception to assure that transportation objectives are met in a way that implements local values and needs. On the I-405 project, this is being done through a series of advisory committees tailored to each of the communities along the corridor, as well as aesthetic and technical committees that consider the entire corridor. These groups will consider the "view from" the corridor (meaning the users' perspective) and the "view to" the corridor (meaning how those off the freeway view it). The committees will consider how I-405 improvements will affect their communities and how best they can be adapted to meet the communities' needs, whether from a visual perspective, a noise-mitigation perspective, the local road network, and so on.

How will noise be minimized on I-405?

WSDOT has a policy of mitigating noise with physical barriers such as berms (mounds or banks of earth used to reduce noise, without eliminating it) and noise walls when conditions warrant. Acoustical engineers evaluate many factors before a construction project begins. These include highway noise, topography, population density, cost and expected levels of noise reduction that a wall might provide. Noise mitigation is also a component of the project's context-sensitive solutions process. Noise walls and other mitigations not only serve a practical purpose, but fit with community needs and values. During construction, contractors will be required to meet local jurisdictions' noise requirements.

How will I-405 improvements affect the water quality & fish resources?

Both water quality and fish resources will benefit from the I-405 Nickel Projects and the long-term master plan. The innovative watershed-based planning approach, combined with water quality treatment will result in a positive contribution to improving water quality in local streams. Wetland restoration, stream and habitat enhancements, re-creation of more natural flow conditions, and removing barriers to fish passage will enhance aquatic systems and watersheds throughout the I-405 corridor. These include the Cedar River, Green River, Sammamish River, Springbrook Creek, May Creek, Coal Creek, Kelsey Creek, Juanita Creek, and Forbes Creek among others.